

# OBJECTIVES

- 10.1** Define key terms introduced in this chapter. Slides [12](#), [19](#), [23](#), [31–34](#)
- 10.2** Explain the ongoing nature of scene size-up beyond the initial moments at the scene. Slide [12](#)

*continued*

# OBJECTIVES

- 10.3** Given a scene-arrival scenario, list several examples of potential hazards for which the EMT should actively search. Slides [15–20](#)
- 10.4** Describe considerations in establishing a danger zone at the scene of a vehicle collision. Slide [19](#)

*continued*

# OBJECTIVES

- 10.5** Recognize indications of possible crime scenes and the potential for violence. Slide [20](#)
- 10.6** Use information from the scene size-up to make decisions about the use of standard precautions to protect against disease exposure. Slide [18](#)

*continued*

# OBJECTIVES

- 10.7** Use information from the scene size-up to determine the mechanism of injury or nature of the illness. Slides [23–35](#)
- 10.8** Explain the importance of determining the number of patients and the need for additional resources in the scene size-up. Slides [36–37](#)

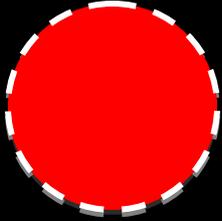
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# OBJECTIVES

- 10.9** Given a number of scenarios, perform a scene size-up, including recognizing potential dangers, making decisions about body substance isolation, determining the nature of the illness or mechanism of injury, determining the number of patients, and determining the need for additional resources.  
Slides [15–20](#), [22–37](#)

# MULTIMEDIA

- [Slide 39 Physical Assessment—Mechanism of Injury Video](#)



# CORE CONCEPTS

- Identifying hazards at a scene
- Determining if a scene is safe to enter
- Mechanisms of injury and how they relate to patient condition
- Determining what additional assistance may be needed at a scene

# Topic

- Scene Size-Up

# Scene Size-Up

# Scene Size-Up

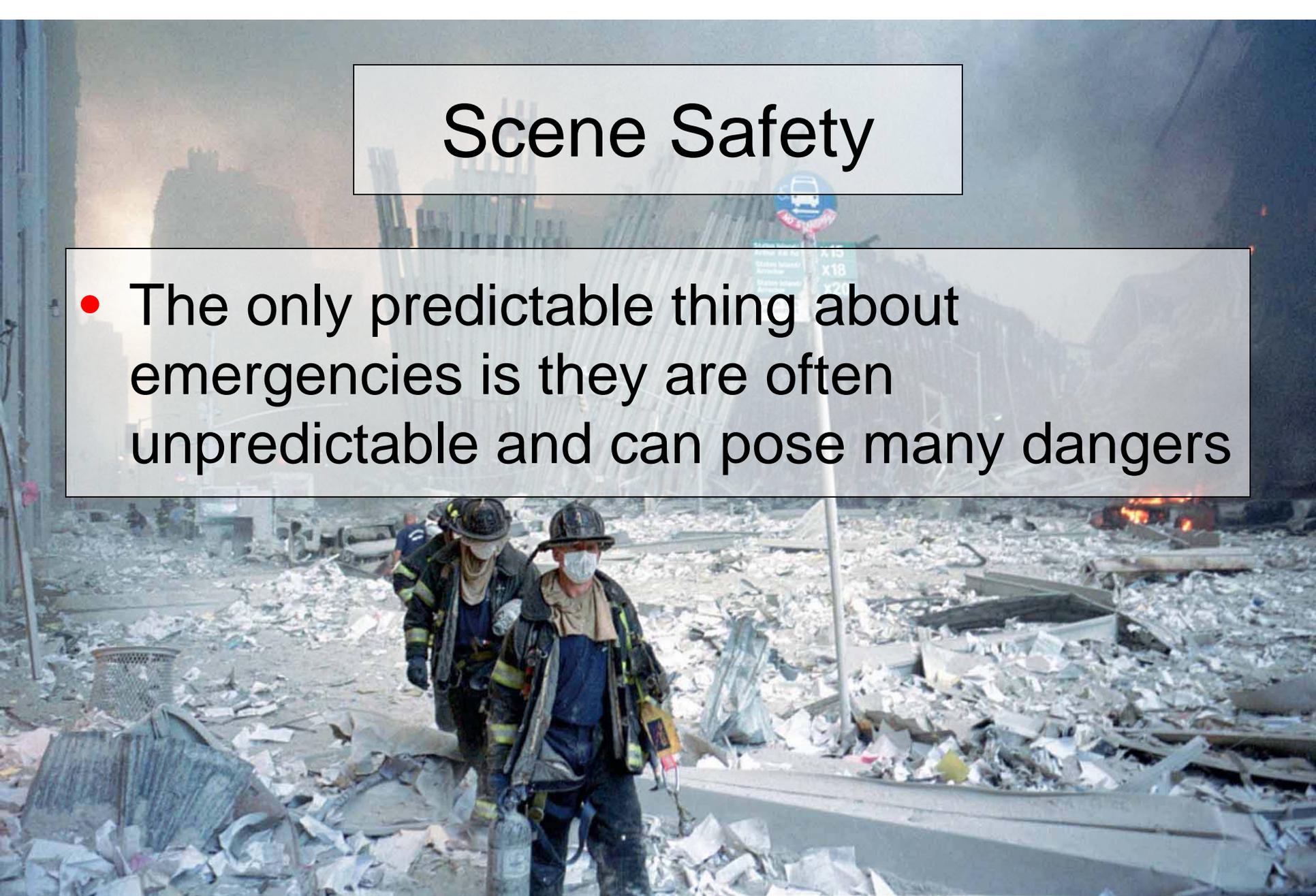


# Elements of Scene Size-Up

- Checking scene safety
- Taking standard precautions
- Noting the mechanism of injury or nature of patient's illness
- Determining the number of patients
- Deciding what additional resources may be necessary

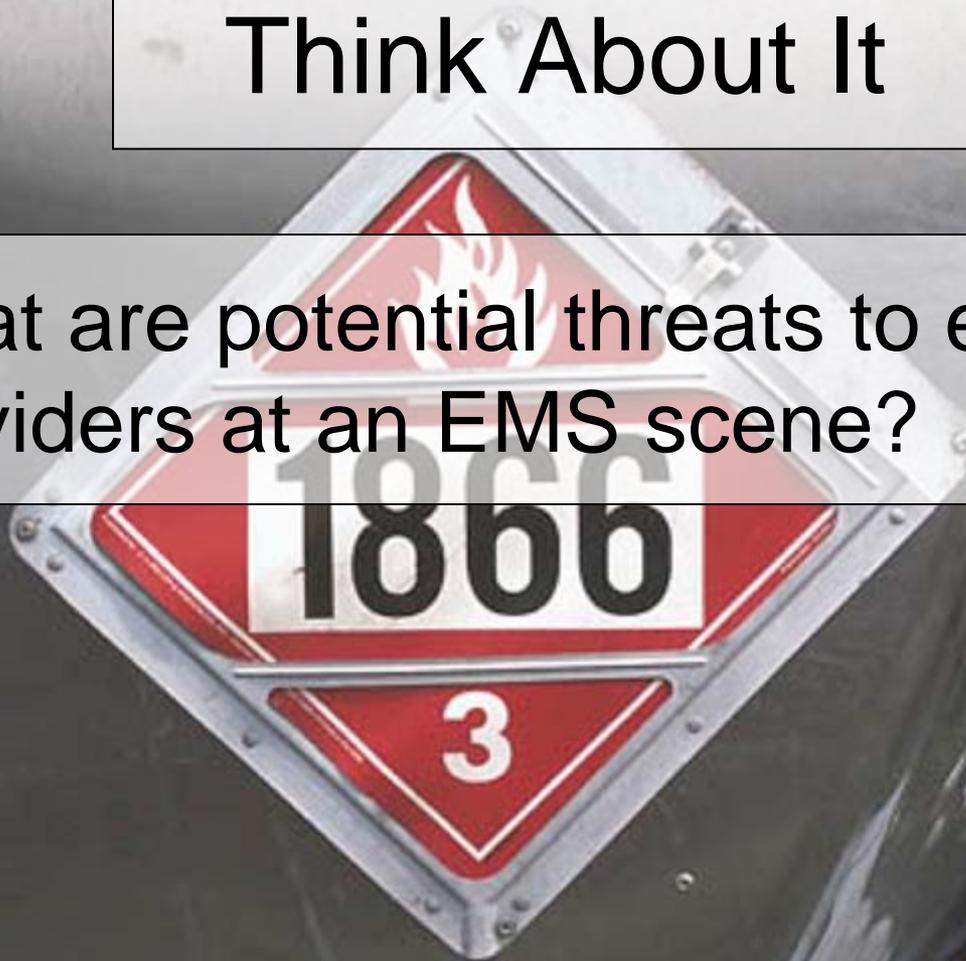
# Scene Safety

- The only predictable thing about emergencies is they are often unpredictable and can pose many dangers



# Think About It

- What are potential threats to emergency providers at an EMS scene?



# Scene Safety Considerations

- Upon approaching scene
  - Look and listen for other emergency units approaching
  - Look for signs of a collision-related power outage
  - Observe traffic flow
  - Look for smoke in the direction of the collision scene

*continued*

# Scene Safety Considerations

- When within sight of scene
  - Look for clues to escaped hazardous materials
  - Look for collision victims on or near the road
  - Look for smoke not seen at a distance
  - Look for broken utility poles and downed wires



*continued*

# Scene Safety Considerations

- When within sight of scene
  - Be alert for persons walking along side of road toward collision scene
  - Watch for signals of police officers and other emergency service personnel

*continued*

# Scene Safety Considerations

- As you reach scene
  - Follow instructions of incident commander
  - Don appropriate personal protective equipment



*continued*

# Scene Safety Considerations

- Establish danger zone
  - Evaluate hazard and restrict area based on threat level
  - Different hazards require different-sized danger zones

*continued*

# Scene Safety Considerations

- Evaluate for threat of violence
  - Fighting or loud voices
  - Weapons visible or in use
  - Signs of alcohol or other drug use
  - Unusual silence
  - Knowledge of prior violence

*continued*

# Think About It

- Although any call can present a potential safety hazard, what types of calls might pose the highest threats of potential violence?

# Nature of the Call

- Determining why EMS has been called
  - Mechanism of injury
  - Nature of illness

# Mechanism of Injury

A photograph of a car with a severely shattered windshield at night. The windshield is completely cracked and spiderwebbed, with some glass shards still attached. The car is parked on a road, and in the background, there are emergency lights (red and blue) and other vehicles, suggesting an accident scene. The overall scene is dark, with the primary light sources being the emergency lights and the car's interior lights.

- Forces that caused injury
- Understanding forces can predict injury patterns

*continued*



# Mechanism of Injury

- Can be very useful in predicting injuries associated with certain types of motor vehicle crashes



# Mechanism of Injury: Head-on Collision

- Up-and-over injury pattern

*continued*



# Mechanism of Injury: Head-on Collision

Down-and-under injury pattern

# Mechanism of Injury: Rear-end Collision



# Mechanism of Injury: Rollover Collision



# Mechanism of Injury: Severe Fall

- Adult: more than 20 feet
- Child under 15 years: more than 10 feet (2–3 times child's height)

*continued*

# Mechanism of Injury: Severe Fall

- Important factors
  - Height from which patient fell
  - Surface patient fell onto
  - Part of patient that hit ground
  - Anything that interrupted fall

# Mechanism of Injury: Trauma

- Low-velocity (knife) injuries
  - Damage limited to area penetrated
  - May be multiple wounds

*continued*

# Mechanism of Injury: Penetrating Trauma

- Medium-velocity (handgun/shotgun) and high-velocity (rifle) injuries may be anywhere in the body
- Damage from the bullet itself
- Damage from cavitation

# Mechanism of Injury: Blunt-Force Trauma

- Injury caused by a blow that strikes body but does not penetrate skin or other body tissues
- Signs are often subtle and easily overlooked
- Maintain index of suspicion based on mechanism of injury

# Nature of the Illness

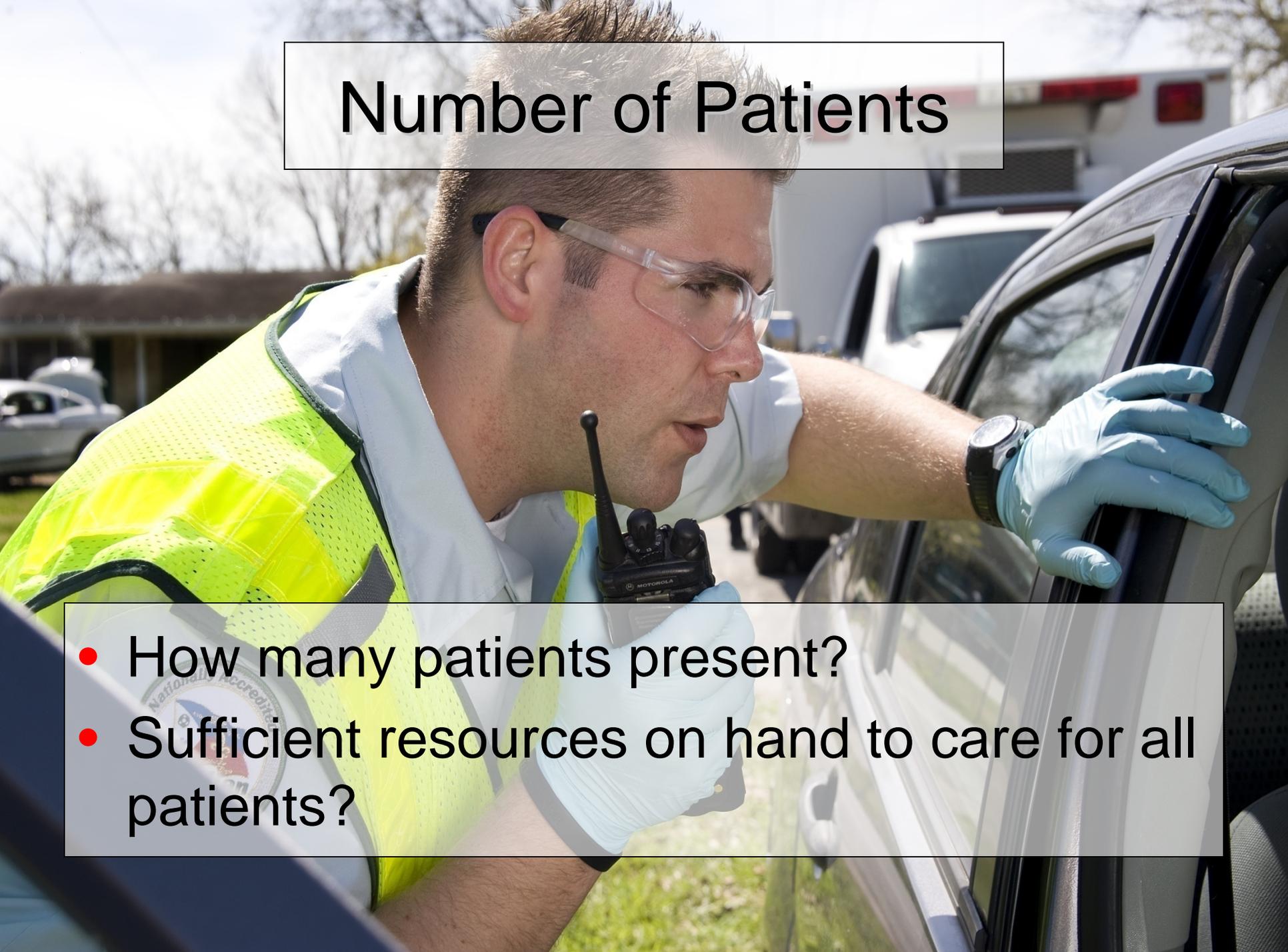
- Reason patient called EMS



# Nature of the Illness

- Information may be obtained from many sources
  - Patient
  - Family and bystanders
  - Scene

# Number of Patients

A paramedic wearing a yellow safety vest, clear safety glasses, and blue nitrile gloves is leaning into the open driver-side door of a white car. He is holding a Motorola two-way radio to his mouth with his right hand and has his left hand on the car's door frame. In the background, an ambulance and other vehicles are visible in an outdoor setting.

- How many patients present?
- Sufficient resources on hand to care for all patients?

# Other Additional Resources

- Does the situation require specialized resources?
  - Fire
  - Technical rescue
  - Hazardous materials response

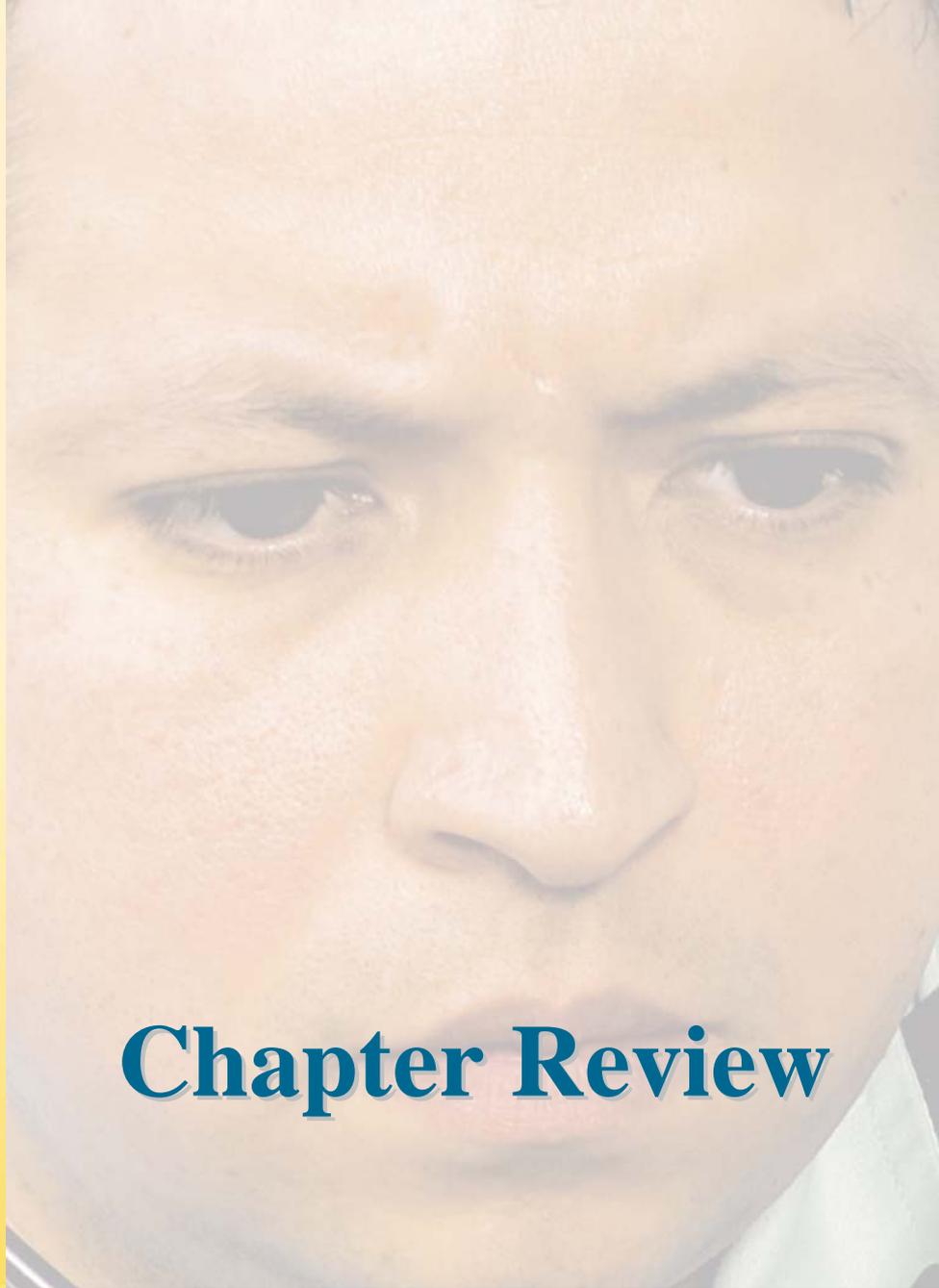
# Think About It

- What are the potential risks to me as a responder on a poisoning or overdose call?
- What are the routes of entry into the body?
- What are some things EMS can do to prevent poisonings, especially in children?

# Physical Assessment— Mechanism of Injury Video



Click [here](#) to view a video on the subject of mechanism of injury.



# Chapter Review

# Chapter Review

- Scene size-up is the first part of the patient assessment process.
- Scene size-up first assures your safety and the safety of fellow rescuers.
- Scene size-up then assures that appropriate resources have been assembled to deal with the situation.

*continued*

# Chapter Review

- Finally, you must take into account the number of patients and other factors at the scene to determine if you will need additional help.

# Remember

- Determine what, if any, threats there may be to your own safety and to the safety of others at the scene.
- Take appropriate Standard Precautions.

*continued*

# Remember

- Determine the nature of the call by identifying the mechanism of injury or nature of a patient's illness.
- Determine the number of patients and any additional resources necessary.

# Questions to Consider

- For each of these dangers, what actions must be taken to remain safe at a collision scene?
  - Leaking gasoline
  - Toxic or hazardous material spill
  - Vehicle on fire
  - Downed power lines

*continued*

# Questions to Consider

- What are common mechanism-of-injury patterns for the following situations?
  - Head-on collision
  - Rear-end collision
  - Fall from a height

# Critical Thinking

- You are called to the scene of a shooting at a fast food restaurant. En route, you plan your scene size-up strategy. What actions do you anticipate taking on arrival?



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